



Attorney/Docket No.: 34003.31  
Customer No. 27683

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Wayne A. Weimer	§	Docket No.:	34003.31
Serial No.:	10/706,735	§	Examiner:	To Be Determined
Filed:	November 12, 2003	§	Art Unit:	1743
Entitled:	Systems and Methods for	§		
	Detection of Low Concentration	§		
	of Molecules Using Surface	§		
	Enhanced Raman Spectroscopy	§		

**INFORMATION DISCLOSURE STATEMENT**

Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In compliance with the duty of disclosure under 37 CFR §1.56, and in accordance with the practice under 37 CFR §1.97 and §1.98, the Examiner's attention is directed to the documents listed on the enclosed modified Form PTO-1449. No inference should be made that the cited references are in fact material, are in fact prior art, or that no better art exists. The cited patents are listed in numerical and alphabetical order and are not in any order based on their pertinence.

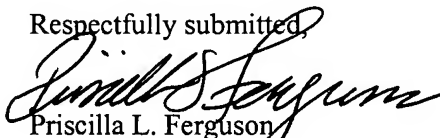
The above-identified application was filed after June 30, 2003. Therefore, pursuant to the waiver of the requirement under 37 CFR 1.98 (a)(2)(i) as stated in a Pre-OG Notice dated July 11, 2003, copies of the U.S. patents listed on the enclosed modified Form PTO-1449 are not being provided.

This Information Disclosure Statement is being filed within three months of the United States filing date or before the mailing date of a first Office Action on the merits. No certification or fee is required (37 CFR §1.97(b)).

Applicant believes no fee is due. However, the Commissioner is hereby authorized to charge any deficiency fees or credit any overpayments associated with this communication to Deposit Account 08-1394 of Haynes and Boone, LLP.

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

Respectfully submitted,

  
Priscilla L. Ferguson  
Registration No. 42,531

Date: March 15, 2004

HAYNES AND BOONE, LLP  
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Dallas, Texas 75202-3789  
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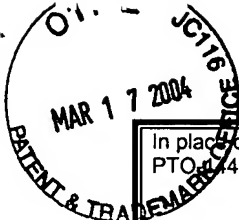
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

**SANDRA KUBIN**

Name

Date

March 15, 2004  
Sandra Kubin



In place of PTO Form 149		U. S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		<i>Complete if Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Application Number	10/706,735
				Filing Date	November 12, 2003
				Applicant(s)	Wayne A. Weimer
				Art Unit	1743
				Examiner Name	To Be Determined
SHEET	1	OF	2	Attorney Docket Number	34003.31

U. S. PATENT DOCUMENTS				
Examiner's Initials	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	AA	5,567,628	10-22-1996	Tarcha, et al.
	AB	5,609,907	03-11-1997	Natan
	AC	5,939,021	08-17-1999	Hansen, et al.
	AD	5,991,488	11-23-1999	Salamon, et al.
	AE	6,025,202	02-15-2000	Natan
	AF	6,608,716	08-19-2003	Armstrong, et al.

FOREIGN PATENT DOCUMENTS					
Examiner's Initials	Cite No.	Foreign Patent Document (Country Code - Number - Kind)	Publication Date MM-DD-YYYY	Patentee or Applicant of Cited Document	Translation Y/N
	AG	WO 98/04902	02-05-1998	The University of Oregon, et al.	

OTHER PRIOR ART		
Examiner's Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item, date, page(s), volume- issue number(s), publisher, city/country where published
	AH	Campion, Alan, et al., "Surface-Enhanced Raman Scattering", Chemical Society Reviews, Vol. 27, 1998, pp. 241-250.
	AI	Gotschy, W., et al., "Thin Films by Regular Patterns of Metal Nanoparticles: Tailoring the Optical Properties by Nanodesign", Applied Physics B, 1996, pp. 381-384.
	AJ	Haynes, Christy L., et al., "Nanosphere Lithography: A Versatile Nanofabrication Tool for Studies of Size-Dependent Nanoparticle Optics", J. Phys. Chem. B, Vol. 105, No. 24, 2001, pp. 5599-5611.
	AK	Hulteen, John C., et al., "Nanosphere Lithography: Size-Tunable Silver Nanoparticle and Surface Cluster Arrays", J. Phys. Chem. B, Vol. 103, No. 19, 1999, pp. 3854-3863.
	AL	Jensen, Traci R., et al., "Nanosphere Lithography: Effect of the External Dielectric Medium on the Surface Plasmon Resonance Spectrum of a Periodic Array of Silver Nanoparticles", J. Phys. Chem. B, Vol. 103, No. 45, 1999, pp. 9846-9853.
	AM	Jensen, Traci R., et al., "Nanosphere Lithography: Surface Plasmon Resonance spectrum of a Periodic Array of Silver Nanoparticles by Ultraviolet - Visible Extinction Spectroscopy and Electrodynamics Modeling", J. Phys. Chem B, Vol. 103, No. 13, 1999, pp. 2394-2401.
	AN	Jensen, Traci R., et al., "Nanosphere Lithography: Tunable Localized Surface Plasmon Resonance Spectra of Silver Nanoparticles", J. Phys. Chem. B., Vol. 104, No. 45, 2000, pp. 10549-10556.
	AO	Kim, W., et al., "Fractals in Microcavities: Giant Coupled, Multiplicative Enhancement of Optical Responses", Physical Review Letters, Vol. 82, Issue 24, June 14, 1999, pp. 4811-4814.
	AP	Kneipp, Katrin, et al., "Single Molecule Detection Using Surface-Enhanced Raman Scattering (SERS)", Physical Review Letters, Vol. 78, No. 9, March 3, 1997, pp. 1667-1670.

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

In place of PTO-1449 Form		U. S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Complete if Known	
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FOREIGN PATENT DOCUMENTS					
Examiner's Initials	Cite No.	Foreign Patent Document (Country Code - Number - Kind)	Publication Date MM-DD-YYYY	Patentee or Applicant of Cited Document	Translation Y/N

OTHER PRIOR ART		
Examiner's Initials	Cite No.	Include name of the author (in CAPITAL LETTERS); title of the article; title of the item, date, page(s), volume- issue number(s), publisher, city/country where published
	AQ	Levlin, M., et al., "Evaporation of Gold Thin Films on Mica: Effect of Evaporation Parameters", Applied Surface Science 115, 1997, pp. 31-38
	AR	Levlin, M., et al, "Evaporation of Silver Thin Films on Mica", Applied Surface Science 171, 2001, pp. 257-264
	AS	Link, Stephan, et al., "Shape and Size Dependence of Radiative, Non-Radiative and Photothermal Properties of Gold Nanocrystals", Int. Reviews in Physical Chemistry, Vol. 19, No. 3, 2000, pp. 409-453.
	AT	Malinsky, Michelle Duval, et al., "Chain Length Dependence and Sensing Capabilities of the Localized Surface Plasmon Resonance of Silver Nanoparticles Chemically Modified with Alkanethiol Self-Assembled Monolayers", J. Am. Chem. Soc., Vol. 123, No. 7, 2001, pp. 1471-1482.
	AU	Malinsky, Michelle Duval, et al., "Nanosphere Lithography: Effect of Substrate on the Localized Surface Plasmon Resonance Spectrum of Silver Nanoparticles", J. Phys. Chem. B., Vol. 105, No. 12, 2001, pp. 2343-2350.
	AV	Mulvaney, Shawn P., et al., "Raman Spectroscopy", Analytical Chemistry, Vol. 72, No. 12, June 15, 2000, pp. 145R-157R.
	AW	Nie, Shuming, et al., "Probing Single Molecules and Single Nanoparticles by Surface-Enhanced Raman Scattering", Science, Vol. 275, February 21, 1997, pp. 1102-1106.
	AX	Schlegel, Vicki L., et al., "Silver-Island Films as Substrates for Enhanced Raman Scattering: Effect of Deposition Rate on Intensity", Analytical Chemistry, Vol. 63, No. 3, February 1, 1991, pp. 241-247.
	AY	Van Duyne, R. P., et al., "Atomic Force Microscopy and Surface-Enhanced Raman Spectroscopy. I. Ag Island Films and Ag Film Over Polymer Nanosphere Surfaces Supported on Glass", J. Chem. Phys., Vol. 99, No. 3, August 1, 1993, pp. 2101-2115.
	AZ	Weimer, W. A., et al., "Tunable Surface Plasmon Resonance Silver Films", Applied Physics Letters, Vol. 79, No. 19, November 5, 2001, pp. 3164-3166.

Examiner Signature		Date Considered	
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